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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,242	12/09/2003	Brian Jones	60001.296US01	4899

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EXAMINER
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TSUI, WILSON W

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/731,242	JONES ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Wilson Tsui	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11/6/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-14 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14, and 16-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This application is in response to the amendment filed on: 11/6/2006.
2. Claims 1-4, 6-14, and 16-22 are pending in the application.
3. Previous rejections for claims 1-22 under 35 U.S.C. 112 first and second paragraph have been withdrawn in view of amendments filed on: 11/6/2006.
4. Previous rejections for claims 18-22 under 35 USC 101 have been withdrawn in view of amendments filed on: 11/6/2006.
5. Previous rejections under 35 USC 103 for claims 1-4, 6-14, and 16-22 have been withdrawn, since applicant's arguments with respect to the improper reference used (Chakraborty), since Chakraborty is not prior art due to effective filing date of a parent application (10/187,060)).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3, 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altamura et al (IJDAR, published: November 7, 2000, pages 6-12) in further view of Sun Micro ("Star Office XML File Format Working Draft", pages 19, and 234, published: January 2001).

With regards to claim 1, Altamura et al teaches a method comprising:

- *Determining properties corresponding to a mini-document that relates to at least one section of an application document:* (Fig. 3, P6-5: whereas, layout analysis is performed to determine the properties for each block in a document (where each block relates to a segment of a document image, and thus represents a mini-document of the entire application document)).
- *Mapping the properties of the mini-document into a markup language element:* (P9-3: whereas, the properties of the mini-document, such as a running-header, is mapped into an element (labeled 'ID'), and assigned an ID value such as 'id0').
- *Storing the properties of the mini-document in the markup language document:* (P8-1 and P9-3: whereas, the properties are stored in a DTD data file).

However, Altamura et al does not expressly teach wherein the properties comprise at least one of a table element.

Sun Micro teaches wherein *mapping includes mapping the properties into at least one member of a group comprising: a table element* (whereas, properties of an application word processing document are analyzed to determine the properties of different sections including table element properties (page 9: whereas, an application word processing document gets analyzed, such that the properties are stored in XML format. Additionally, as explained in page 234, table properties of a word document, include table elements to describe a particular table in a application document)).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Altamura et al's method for determining properties corresponding to a mini-document, to have further included determining the properties

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comprise at least one of a table element, as taught by Sun Micro. The combination of Altamura et al and Sun Micro would have allowed Altamura et al to have implemented an "open standard for office documents" (Sun Micro, page 19).

With regards to claim 3, which depends on claim 1, Altamura et al teaches a method wherein *mapping the properties further comprises mapping a type attribute that corresponds to the mini-document* (P9-3: whereas, each type of mini-document is identified by a an ID number, such as 'id0').

With regards to claim 6, which depends on claim 1, Altamura et al teaches a method wherein:

- *Determining the properties corresponding to an additional mini-document that relates to at least one section of the application document:* (Fig. 3, p6-5: whereas, layout analysis is performed to determine one or more additional mini documents/blocks that have like properties in a document).
- *Mapping the properties of the additional mini-document into a markup language element, an attribute and a value:* (P9-3: whereas, the properties of the additional mini-document, such as a running-header, is mapped into an element (labeled 'ID'), and assigned an ID value such as 'id0' for one type of mini-document, and 'id4' for another type of mini document).
- *Storing the properties of the mini-document in the markup language document:* (P8-1 and P9-3: whereas, the properties are stored in a DTD data file).

Additionally, Sun Micro teaches wherein *mapping includes mapping the properties into at least one member of a group comprising: a table element*, as similarly explained in the rejection for claim 1, and is rejected under the same rationale.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Altamura et al's method for determining properties corresponding to an additional mini-document, to have further included determining the properties comprise at least one of a table element, as taught by Sun Micro. The combination of Altamura et al and Sun Micro would have allowed Altamura et al to have implemented an "open standard for office documents" (Sun Micro, page 19).

With regards to claim 7, which is dependent on claim 1, Altamura et al teaches a method comprising:

- *Determining whether properties associated with all mini-documents of the application document have been stored in the markup language document; and processing further mini-documents when the properties associated with all mini-documents have not been stored in the markup language document (P7-9: whereas, the application document is translated into HTML/XML formats by aggregating all textual, graphical, layout and logical information extracted in the document analysis and understanding process).*

With regards to claim 8, which is dependent on claim 1, Altamura et al teaches a method wherein *the properties of the mini-document stored in the markup language document (in claim 1, and is rejected under the same rationale), are understood by an application that understands the markup language when the mini-document is not native*

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*to the application* (P7-10, Fig. 5: whereas, xml documents can be sent to a client browser that does not have the mini-document native to the application, through the help of a validating parser using an agreed schema of information exchange (DTD) + XML)).

7. Claims 2, 10-13, and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altamura et al (IJ DAR, published: November 7, 2000, pages 6-12), Sun Micro ("Star Office XML File Format Working Draft", pages 19, and 234, published: January 2001), in further view of Klink et al (DFKI, published, September 25, 2000, pages 1a, 3, 4, and 11).

With regards to claim 2, which depends on claim 1, Altamura et al teaches a method *further comprising determining whether the mini-document is one of a header* (P9-3, whereas, a mini-document is recognized to be a header (labeled as 'running-header')). However, Altamura et al does not expressly teach *determining whether the mini-document is one of a footer*.

Klink et al teaches *determining the mini-document is one of a footer* (Section 4.1: whereas, each block/mini-document in the document are determined, including footers).

Furthermore, Altamura et al and Klink et al are analogous art since they are from the same problem solving area: document analysis and document data in XML.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Altamura et al's set of mini-documents to further include recognizing a footer as a mini-document as well. The combination of Altamura et al, Sun

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Micro, and Klink et al would have allowed better "recognition of document structure" (Klink et al, Section 4) in Altamura et al's system.

With regards to claim 10, Altamura et al teaches a computer readable medium comprising:

- *Determining properties relating to a mini-document* (similar to claim 1, and is rejected under the same rationale) *used within a word processing document* (P9-4: whereas, the image document is word processed since OCR technology is used to extract words from the image, and thus represents a word processing document as well).
- *Determining whether the mini-document is one of a header* (P9-3, whereas, a mini-document is recognized to be a header (labeled as 'running-header').
- *Writing the properties into at least one of a markup language element, an attribute, and a value, similarly in claim 1, and is rejected under the same rationale.*
- *Storing the properties in the markup language document such that the headers of the word-processing document are substantially maintained when the markup language document is parsed by an application* (P8-1 and P9-3: whereas, the properties are stored in a DTD data file).

However, Altamura et al does not expressly teach *wherein writing includes writing the properties into at least one member of a group comprising: a table element , determining whether the mini-document is one of a footer, and the properties stored in a markup language file such that the footers of the word-processing document are*

substantially maintained when the markup language document is parsed by an application.

Altamura and Sun Micro similarly teach *wherein writing includes writing the properties into at least one member of a group comprising: a table element*, as similarly explained in the rejection for claim 1, and is rejected under the same rationale.

However, Altamura and Sun Micro do not expressly teach *determining whether the mini-document is one of a footer*, and the properties stored in a markup language file such that the *footers* of the word-processing document are substantially maintained when the markup language document is parsed by an application.

Klink et al similarly teaches *determining whether the mini-document is one of a footer*, in claim 2, and is rejected under the same rationale. Furthermore, Klink et al teaches storing properties of mini-document data in a markup language file (Section 7: *whereas, document representation data can be stored in HTML/XML format*)

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Altamura et al's ability to determine whether a mini-document is a header, to also further include the ability to determine whether a mini-document is a footer for storage in a markup language document as taught by Klink et al. The combination of Altamura et al, Sun Micro, and Klink et al would have allowed Altamura et al's system to have ensured that the footer properties in a markup language document would have been substantially maintained when a markup language document was stored by an application.

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With regards to claim 12, which depends on claim 10, Altamura et al teaches a computer readable medium for performing a method similar to claim 8, and is rejected under the same rationale.

With regards to claim 13, which depends on claim 10, Altamura et al teaches a computer readable medium for performing a method similar to claim 3, and is rejected under the same rationale.

With regards to claim 16, which depends on claim 13, Altamura et al teaches a computer readable medium comprises:

- *Determining properties corresponding to an additional mini-document that relates to at least one section (similarly in claim 6, and is rejected under the same rationale), of a word processing document (in claim 10, and is rejected under the same rationale).*
- *Mapping the properties of the additional mini-document into at least one of a markup language element, an attribute, and a value; and storing the properties of the additional mini-document in the markup language document. (as similarly taught in claim 6, and is rejected under the same rationale).*

Additionally, Altamura and Sun micro teach *wherein the mapping includes mapping the properties into at least one member of a group comprising: a table element, as similarly explained in the rejection for claim 10, and is rejected under the same rationale.*

With regards to claim 17, which depends on claim 13, Altamura et al teaches a computer readable medium for performing a method similar to claim 7, and is rejected under the same rationale.

With regards to claim 18, Altamura et al teaches a system comprising:

- *Determining properties relating to a mini-document included in at least one section of an application document:* (similarly in claim 1, and is rejected under the same rationale).
- *Determine whether the mini-document is one of a header* (P9-3, whereas, a mini-document is recognized to be a header (labeled as 'running-header').
- *Map the properties into at least one of a markup language element, an attribute, and a value:* (similarly, in claim 1, and is rejected under the same rationale).
- *Store the properties in the markup language document* (similarly in claim 1, and is rejected under the same rationale), *and a validation engine configured to validate the markup language document* (P7-10: whereas, a parser is used for validating the XML document).

However, Altamura et al does not expressly teach, *wherein the mapping includes mapping the properties into at least one member of a group comprising: a table element, determining whether the mini-document is one of a footer, and the properties stored in a markup language file such that the footers of the word-processing document are substantially maintained when the markup language document is parsed by an application.*

Altamura et al and Sun Micro teaches *wherein the mapping includes mapping the properties into at least one member of a group comprising: a table element*, as similarly explained in the rejection for claim 1, and is rejected under the same rationale.

However, Altamura et al and Sun Micro do not expressly teach determining *whether the mini-document is one of a footer*, and the properties stored in a markup language file such that the *footers* of the word-processing document are substantially maintained when the markup language document is parsed by an application.

Klink et al similarly teaches *determining whether the mini-document is one of a footer*, in claim 2, and is rejected under the same rationale. Furthermore, Klink et al teaches storing properties of mini-document data in a markup language file (Section 7: *whereas, document representation data can be stored in HTML/XML format*)

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Altamura et al's ability to determine whether a mini-document is a header, to also further include the ability to determine whether a mini-document is a footer for storage in a markup language document as taught by Klink et al. The combination of Altamura et al, Sun Micro, and Klink et al would have allowed Altamura et al's system to have ensured that the footer properties in a markup language document would have been substantially maintained when a markup language document was stored by an application.

With regards to claim 19, which depends on claim 18, Altamura et al teaches a system performing a method similar to claim 6, and is rejected under the same rationale.

With regards to claim 20, which depends on claim 18, Altamura et al teaches a system performing a method similar to claim 7, and is rejected under the same rationale.

With regards to claim 21, which depends on claim 18, Altamura et al teaches a system wherein *the properties of the mini-document stored in the markup language document are understood by an additional application that understands the markup language when the mini-document is not native to the additional application* (P7-10, Fig. 5: whereas, xml documents can be sent to a additional application (client browser) that does not have the mini-document native to the additional application, through the help of a validating parser using an agreed schema of information exchange (DTD) + XML)).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Altamura et al (IJRAR, published: November 7, 2000, pages 6-12) and Sun Micro ("Star Office XML File Format Working Draft", pages 19, and 234, published: January 2001), in further view of Eisenberg (XML.com, published, June 8, 2001, pages 1a and 1).

With regards to claim 4, which depends on claim 1, Altamura et al teaches a method for a *mini-document occurring in a specified section of the application document* (in claim 1, and is rejected under the same rationale), and a *type attribute*, in claim 3, and is rejected under the same rationale. However, Altamura et al does not expressly teach the type attribute corresponding to *whether the mini-document occurs on a first page, odd pages, or even pages of the application document*.

Eisenberg teaches the *attributes* for whether pages *correspond to even, or odd number* pages of a document (P1-4), as well as a *first page* (P1-2: whereas, a cover page is a sequence of one page).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Altamura et al's type attribute for whether a document (such as a mini-document) occurs on a first, even, or odd page as taught by Eisenberg. The combination of Altamura et al, Sun Micro, and Eisenberg would have allowed Altamura et al's system to have "specified the order (of pages) when it was the time to generate a sequence of pages" (Eisenberg, P1-1).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Altamura et al (IJRAR, published: November 7, 2000, pages 6-12) and Sun Micro ("Star Office XML File Format Working Draft", pages 19, and 234, published: January 2001) in further view of Pavlov (US Patent: 6,725,426 B1, published: Apr. 20, 2004, filed: Mar. 17, 2000).

With regards to claim 9, which is dependent on claim 1, Altamura et al teaches a method for wherein *the markup language document is manipulated* on a client station to *substantially reproduce the mini-document of the application document not withstanding the presence of an application that generated the markup language document* (Section 6.2, Fig. 5: whereas, the properties stored in the markup document, are understood by a client web browser to reproduce the document without using WISDOM++). However Altamura et al does not teach the markup language document is *manipulated on a server* to reproduce the mini-document.

Pavlov teaches a markup language document is *manipulated on a server to reproduce the mini-document* (column 3, lines 59-65: whereas, a system capable of retrieving XML content is manipulated by a server to reproduce a document for a particular device).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Altamura et al's mini-document reproduction system to be reproduced on a server system as taught by Pavlov. The combination of Altamura et al, Sun Micro, and Pavlov would have allowed Altamura et al's system to have "stored content in XML format instead of word processing documents" (Pavlov, column 1, lines 34-39).

10. Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altamura et al (IJ DAR, published: November 7, 2000, pages 6-12), Klink et al (DFKI, published, September 25, 2000, pages 1a, 3, 4, and 11) and Sun Micro ("Star Office XML File Format Working Draft", pages 19, and 234, published: January 2001), in further view of Pavlov (US Patent: 6,725,426 B1, published: Apr. 20, 2004, filed: Mar. 17, 2000).

With regards to claim 11, which depends on claim 10, Altamura et al a computer readable medium comprising:

- A *word processing document*, similarly, in claim 10, and is rejected under the same rationale.
- *The markup language document is manipulated on a client to substantially reproduce the mini-document of the word-processing document not withstanding*

*the presence of an application that generated the markup language document*

(Section 6.2, Fig. 5: whereas, the properties stored in the markup document, are understood by a client web browser to reproduce the document without using WISDOM++). However Altamura et al does not teach the markup language document is *manipulated on a server to reproduce the mini-document*.

However, Altamura et al does not teach the markup language document is *manipulated on a server to reproduce the mini-document*.

Pavlov teaches a markup language document is *manipulated on a server to reproduce the mini-document* (column 3, lines 59-65: whereas, a system capable of retrieving XML content is manipulated by a server to reproduce a document for a particular device).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Altamura et al's mini-document reproduction system to be reproduced on a server system as taught by Pavlov. The combination of Altamura et al, Klink et al, Sun Micro, and Pavlov would have allowed Altamura et al's system to have "stored content in XML format instead of word processing documents" (Pavlov, column 1, lines 34-39).

With regards to claim 22, which depends on claim 18, Altamura et al teaches a system performing a method similar to claim 9, and is rejected under the same rationale.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Altamura et al (IJDAR, published: November 7, 2000, pages 6-12), Klink et al (DFKI,

published, September 25, 2000, pages 1a, 3, 4, and 11) and Sun Micro ("Star Office XML File Format Working Draft", pages 19, and 234, published: January 2001), in further view of Eisenberg (XML.com, published, June 8, 2001, pages 1a and 1).

With regards to claim 14, which depends on claim 13, Altamura et al teaches a method for a *mini-document occurring in a specified section of the word processing document* (in claim 10, and is rejected under the same rationale), and a *type attribute*, similarly in claim 3, and is rejected under the same rationale. However, Altamura et al does not expressly teach the type attribute corresponding to *whether* the mini-document occurs on a first page, odd pages, or even pages of the word processing document.

Eisenberg teaches *attributes* for whether pages correspond to even, or odd number pages of a document (P1-4), as well as a *first page* (P1-2: whereas, a cover page is a sequence of one page).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Altamura et al's type attribute for whether a document (such as a mini-document) occurs on a first, even, or odd page as taught by Eisenberg. The combination of Altamura et al, Klink et al, Sun Micro, and Eisenberg would have allowed Altamura et al's system to have "specified the order (of pages) when it was time to generate a sequence of pages" (Eisenberg, P1-1).

### ***Response to Arguments***

12. Applicant's arguments, see page 7 of Applicant Remarks/Arguments, filed 11/6/2006, with respect to claims 1-4, 6-14, and 16-22 have been fully considered and

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are persuasive. The previous rejections for claims 1-4, 6-14, and 16-22 have been withdrawn.

**Conclusion**

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wilson Tsui whose telephone number is (571)272-7596. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Wilson Tsui  
Patent Examiner  
Art Unit: 2178  
November 20, 2006

11/20/06



STEPHEN HONG  
SUPERVISORY PATENT EXAMINER